

The MACDONALD COLLEGE *Journal*⁺

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OCTOBER 1940



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EDITORIAL COMMENT

The Lord Helps Those

As the editors of this young Journal have pondered over its policy and the way it should serve its community, they have been impressed by a saying which occurred in one of the articles of the last issue:

"If we are to have a great nation, the people themselves must do great things".

The Journal exists primarily as an organ for farmers and those whose life is lived in farming areas. The welfare of the rural community will therefore always be its chief concern. It will, to the best of its ability and the resources at its command, which fortunately are considerable, provide useful and informative articles for those actually engaged in agriculture. It will publish news of movements and trends in the wider life of the communities in which its readers live, of its schools, its women's organizations, of the activities of the department of agriculture and of co-operatives. It will print articles that will advise and stimulate — even try to inspire action for the general welfare — but there the influence of the printed word stops. The scope of the Journal's real usefulness rests in the hands of its readers.

The editors and sponsors of the Journal have great faith in the possibilities of our rural people, greater, perhaps, than they have in themselves. They know, however, that our greatest need is to learn to work together. Farmers' movements have failed in Canada — when they have failed — by reason of this one disability.

We think of these as strenuous times and so they are. But let us know ourselves well enough to admit that we could be pushed much harder and still survive. It was a wise man who said: "As long as we still can say, 'This is the worst' — the worst is not yet." Nothing should be allowed to prevent us from recognizing the value of the things we have in common before we are blinded by the threat of those that divide. NOW is the time to take those steps towards consolidating our community life on all fronts, social, economic and political, if it is to be done at all.

To Our Subscribers

The Macdonald College Journal is *your* paper. In the paragraph above we have outlined its purposes and its aims, and let us add that we have undertaken its publication out of a sense of responsibility to our constituency. We have no selfish interests to serve in the matter.

The success of the magazine depends on your support, and so far, subscriptions have been coming in more slowly than we anticipated. In getting the magazine to the people our first thought was to give the opportunity to the various agricultural societies, farmers' clubs, Women's Institutes, etc. in order to give them the benefit of the regular agent's commission. We wanted to assist our local organizations rather than employ a smaller number of paid agents.

But so far, this method has not been very effective. Can you suggest any way to hasten subscriptions — any way to contact new subscribers? Our success depends on our building up a large subscription list, and one subscription now is worth several six months from now. Will you help increase our circulation in your district?

Farmers, Fishermen and Books

by Nora Bateson

THE Prince Edward Island library was set up a few years ago as a demonstration of what could be done in regional rural library service. The demonstration was originally financed by the Carnegie Corporation but since 1936 it has been supported entirely by the provincial government. It proves that if a sufficiently large unit of population is taken (Prince Edward Island has a population of about 90,000) people in rural districts and small towns can be given a library service similar to that given by a good city library. The solution is to have a central pool of books, efficiently managed by trained people, and a system of branches by which it is brought to the people.

What use is made of this library? Not everyone in Prince Edward Island uses it but about twenty-five per cent of the people are registered readers and this does not include the children who use the books sent to the schools. About a quarter of a million books are read every year. This means the releasing of ideas, some practical, some intangible, and the stimulating and enriching of life among the people in a thousand quiet ways. The real value of the library will only be seen however when the children, now growing up with books, develop into an adult population accustomed to books and ready to use the full resources of a library.

The Prince Edward Island library which consists of about 50,000 up-to-date books has been built up specially with the interests of farmers and fishermen in mind. It contains every book and periodical on farming and fishing that could conceivably interest this community. There is a wide range of reading on practical matters such as carpentry, boat-building, automobiles, aeroplanes, home economics, gardening, etc.

One of the striking features of this library is the great use which is made of these practical books. A man wishes to build a dam and the two best up-to-date books for his purpose are sent down to him. If no one else in Prince Edward Island happens to be building a dam at that time he is able to renew the books until he has finished the job!

Another man, a boat builder, looks over every book in print on small boat building and follows "The Rudder" and "Yachting" in his effort to get information that will help him to build boats which, as he says, will have "line and style and beauty".

Manuals on navigation are worn out in use as are also books on automobiles and aeroplanes. One boy in his teens asks to have sent to him every new book on aeroplanes, their construction, and the lives and adventures of aviators!

Instances could be multiplied showing the practical use which is made of this library. It supplies a great variety of simple up-to-date information invaluable for the carrying on of every-day activities, information which could be

obtained in no other way.

Books which throw light on the catastrophic events in which we are all involved: Hitler's "Mein Kampf", Gunther's "Inside Europe", Roberts, "House that Hitler Built", Wickham Stead's "Our War Aims" are in demand everywhere.

As in all other libraries the greatest demand is for novels, biographies, books of travel and adventure; such books as people read for pure pleasure. There is a great interest in this island province in stories, real and imaginary, about the sea, accounts of polar exploration, of exploits in the air.

It is a fact that if you live in Prince Edward Island you can pursue any line of reading which your fancy or need dictates. You can get advice as to the best books for your purpose from the library. For, although the Prince Edward Island library has twenty-four branches, it is one system and through your nearest branch you can get any of the 50,000 books you wish to read. Every week between one and two hundred books move from branch to branch in answer to requests and every summer the stock of books in each branch is completely changed. The branches are open two afternoons a week and always on Saturday afternoon and evening.

The needs of children are not forgotten. About one-third of the books are children's books and they are a very attractive section of the library. These are available not only in the branches but boxes of books are sent to the rural schools and may be changed frequently.

The branches are in charge of local custodians but the work of selecting and distributing the books is in charge of professional librarians, trained and experienced.

British Columbia has regional libraries, Ontario is developing them and Nova Scotia has plans. Everywhere in Canada alert thinking people are saying that libraries are an absolute essential if our democracy is to function. People today need the mental stimulus, the information and ideas that a public library alone can supply freely and adequately. The regional library plan is a way in which this service can be brought to country people and those living in small towns.

And what of the war? One of Nazi Germany's first steps in subjugating a people is to burn its libraries. Since the last war one of the outstanding educational developments in Europe's democracies, in Great Britain, in the Scandinavian countries, in Finland, in Czechoslovakia, has been the spread of public and regional libraries. And the country that read more books in proportion to its size than any other European country was Finland! Perhaps one reason why they fought so valiantly was because they knew what they were fighting for!

Constructive Citizenship

by H. R. C. Avison

THE conviction that the average man must take on added responsibilities for citizenship is being forced upon us by recent events. Until now there has been much to discourage this. It was assumed not so long ago that the business of government and the general welfare of the nation were the affairs of the ruling class. More recently it was taken for granted that special training was required to master the intricate details of politics, that these were quite beyond the average man. Even with the emphasis, in the new world, on government "by the people", there was the feeling that those specially gifted, or specially appointed, would look after the nations affairs. When this was not well done a mood of helplessness settled on the average man—"What can one individual do?" he asked. Admitting exceptional cases of persons and communities this has been increasingly true in Canada in recent years.

But a change is in the air. Not much, it is true, has happened yet to make this change manifest; but many a man in these days, overwhelmed by the tragedy of world affairs, is nursing a blind resolve that when the immediate danger is passed he will do something to prevent this happening again. The passion for freedom for himself, the hatred of injustice and suffering for others is stirring in many an average man, driving him, struggling in some way to find expression. To those enlisted and willingly committed to winning the war, their individual part seems small and insufficient; to those unable to go, doing what they can in their jobs at home, their part seems not enough. How else can this passion find outlet? What more can men do *now*?

Some adequate answer must soon be found for this question, difficult as it is. Such an answer must provide opportunity for service to Canada and a growing understanding of her needs. It must insure the preservation of freedom and the varied contributions of groups and individuals. It must have an application wide enough and be convincing enough to satisfy the desire for justice and the resolve that is now being stirred into life.

Two suggestions may here be made:

First—Let each begin by increasing his understanding of what Canada's real problems are. "The cardinal sin to-day" says Josiah Stamp, "is to lose confidence in developed intelligence. It has brought us so far and it must see us through . . . Civilization in its peril cannot be worse off if public opinion becomes enlightened, liberal and courageous. It may be saved by such education, but if it is not, it will at least have died fighting."

Citizenship is more than high school civics, through which we learned how the machinery of government works. There are serious problems of politics as the Sirois report on Dominion Provincial Relations will show—and there are others in the economic field which intrude themselves on us all from day to day. Most important because they are most commonly overlooked, are problems in the social field. Each man may not become an expert in all of these but he can learn enough to know whether Canada's real problems are the ones that are being dealt with. On those that interest him most he can specialize. There is abundant material available for reading and study. Whatever he learns will and should be reflected in his action in the political party of his choice.

And this is the second suggestion: political action by each and every citizen. A dictator is an anomaly to the man who knows what he wants for his country and joins with his neighbours in getting it. Therefore the ordinary man, no longer leaving political interests to the seasoned few nor standing aloof only to protest when it is too late, should take an active part in local politics, in the forming and carrying out of policies. There is no surer way of defeating the dictator than this participation by the average man. Such activity can be the offensive for freedom and justice. By such enlightened understanding of Canada's real problems and by such effective action he can begin at once to give some expression to this rising conviction that he and all his fellow citizens share the responsibility for things as they are and as they will become.

With growing knowledge, developing skill, a sense of trusteeship and adequate organization, this will be a constructive citizenship.

*We are the music makers
And we are the dreamers of dreams,
Wandering by lone sea breakers
And sitting by desolate streams;
World-losers and world-forsakers,
On whom the pale moon gleams:
Yet we are the movers and shapers
Of the world, forever — it seems.*

Some Weaknesses of Quebec Farming

by R. Summerby

DURING the past summer while judging the Agricultural Merit Competition the writer had the opportunity of visiting nearly one hundred farms in some thirteen counties in and around Montreal. He thus had an opportunity of observing the practices being followed. The farms examined probably represented considerably better than the average of the district, for they were competing for high honors.

As was to be expected a wide variety of types of farming was encountered, and on the whole the farms were of a high order, but of course some were much better than others. The author believes that it will be well to point out some of the prevailing weaknesses. The purpose of this article, therefore, is to call special attention to some of the features related to the crop production aspects of the competition, that were not all that could be desired.

While in many cases crops were quite good, none were as good as they could be, and in many there was considerable room for improvement. This was evidenced not alone by the fact that some of the crops were only fair, but also by the presence of considerable quantities of weeds in many cases. Of these the most important as judged by general prevalence, and their seriousness on some farms, may be mentioned, — Couch Grass, Canada Thistle, Sow Thistle, Ragweed and Mustard. Of these, the first mentioned was without question the most frequent and the worst offender. It is the author's considered opinion that on most farms the crops had suffered from inadequate attention to soil management practices.

Of these drainage is of first rank importance. To this it must be said that a fair amount of attention had been given. Very few farmers had gone to the expense of underdrains, but those who had done so considered it worth while. Many of them had undertaken to put up their land in wide ridges and to round them up with a horse scraper allowing the surface water to get away freely. While not nearly as good as underdrains, these round ridges provide a cheap way of making improvements that can be done at will.

The lack of good tillage or soil preparation is considered to be an important weakness in many cases. There was direct evidence of this in the cultivated crops. Not infrequently was it true that in this crop, which should be used as a means of keeping land clean, many weeds were being allowed to grow. A cultivated crop where the cultivation is not well done is often worse than useless in controlling weeds, for when carelessly done the cultivation favors the weed growth as much as it does the crop.

In very few cases has it been found practicable to have a sufficiently large cultivated acreage to precede the area that is to be seeded down. Instead of seeding down after a cultivated crop, it has had to be done after sod, or a

grain crop. An important weakness was to be found at this point. When land is prepared for seeding down immediately after sod, or grain which follows sod, special precautions must be taken to put the land into good tilth and free it from weeds. Summer cultivation is the best way of doing this. By this is meant the plowing of hay or pasture in July or early August followed by cultivation for the rest of the summer; or where the land has been in grain, it may be cultivated deeply and intensively for the rest of the season. Neither of these practices were followed on the farms visited, except in rare cases. Had they been followed there would have been many fewer weeds. Moreover, the hay and grain crops would have given higher yields, and have been of much better quality.

One of the reasons for not doing more summer cultivation on many farms is lack of power. Plowing and cultivating during the hot weather in the summer when the land is dry is extremely hard on horses, and it is not to be wondered at that little summer cultivation is done, even though the results would be very good as far as the crops are concerned. On farms where tractors are available there is not the same limitation to summer-cultivation, and it will no doubt come into very general use as soon as its benefits are recognized. The use of the tractor, which by the way is taking place rapidly, should make for a very great improvement in this regard.

Another rather serious weakness that was very common was the use of poor quality seed. This was shown by the presence of many weeds in the meadows. One of the worst and most prevalent was ragweed. It may be that some of these weeds were from weed plants that should have been destroyed before the hay crop was seeded. However, in a large number of cases it was learned that clover seed had been obtained from a neighboring farmer who had produced clover seed and had sold it to his neighbor without grading. This is often the method of getting rid of seed that has too many weeds to be graded into one of the saleable grades.

Home grown seed is better than imported seed, other things being equal, and if the seed is good and free from weeds, obtaining it from a neighbor may be the very best source of supply, but to do so without knowing whether bad weeds are contained in it, is to run very great risks of introducing serious weeds into a farm in large quantities. The best way to guard against this is to make sure that all seed used is graded by official inspectors.

While there are several other ways in which improvement could be made, it is believed that with more attention to drainage, to the control of weeds by proper tillage, to seed bed preparation, and to the use of hardy seed free from weeds, the yields and quality of the crops produced could be raised enormously and very profitably.

Preparing Bees for Winter

by C. B. Gooderham, Dominion Apiarist

THE wintering of bees is one of the most important problems of Canadian beekeeping. Every spring a large number of colonies die or become seriously weakened when a little more care the previous fall would have saved them. No other keeper of live stock would tolerate the losses the beekeeper seems willing to take.

Three things are essential for successful wintering — to neglect any one of them is to nullify the benefits of the others and to invite disaster. These essentials are:—

1. Strong colonies of young bees; 2. An abundant supply of wholesome food; 3. Adequate protection from wind and cold.

Strong Colonies of Young Bees

To secure strong colonies of young bees each colony must be headed with a young prolific queen during August and September because it is the eggs laid during this period that will produce the force of bees that are to live through the winter. Young queens introduced in the fall are still young and vigorous the following spring and are able to build the colonies up to maximum producing strength in shorter time than could old or worn-out queens.

Leaving old queens in the colonies during the fall often results in supersedure too late in the season for the new queen to become mated; thus such colonies will be headed with drone-producing queens the following spring. Furthermore, the old queens may die before spring and the colony will be left hopelessly queenless; or old queens may suddenly fail in their egg-laying during the critical brood-rearing period of spring and the colony may be thus unable to build up to maximum strength in time for the harvest.

A strong colony is one containing sufficient bees to cover at least eight full-depth combs on or about October 1st. A strong force of bees is able to protect itself during the winter much better than a weak one. Furthermore, the consumption of food will be proportionately less in the strong colony. The bees must be young because young bees are more likely to survive the rigours of winter than old ones.

A weak colony is one covering less than five combs when ready for feeding in the fall.

All colonies that are weak in the fall should be united to others, or two such colonies may be wintered in one hive with a bee-tight division board between them. This is an excellent method of wintering over a surplus of queens for emergency use in the spring.

In addition to having young queens each colony must have enough room during the fall for maximum brood production and sufficient food for all brood reared. If the fall honey flow is insufficient for this purpose either enough honey from the main crop must be left with the colonies,



A WELL-PROTECTED APIARY

or the bees must be fed with sugar syrup. Any shortage of food during the fall will result in weaker colonies for winter.

The Food Supply

Every colony should contain at least forty pounds of food when ready for winter. Any amount in excess of this is a further insurance against loss. It is far better to find living colonies with a surplus of food in the spring than it is to find them dead of starvation.

Most of the colonies that die or become seriously weakened do so during the early spring simply because their food supply was not quite enough to carry them through. An extra ten pounds of honey or syrup might have saved them.

The total amount of food required for the winter should be given before the middle of October and once feeding is started it should be finished as soon as possible to avoid undue disturbance of the bees. During the feeding period care must be taken not to leave honey or syrup exposed in open places, otherwise a bad case of robbing may be started.

If the bees are to be wintered on honey alone a deep super of well-capped honey from the main clover or buck-wheat flow should be saved for each colony. Honey gathered during the spring or fall or from alfalfa is unsafe. Do not feed back honey, however, unless it is certain that it comes from disease-free colonies. It is a good plan to save a super of honey from each colony and then to give it back to the colony that produced it.

If the food supply is to be sugar syrup only the best white granulated sugar should be used. One pound of sugar must be allowed for every pound of stores required by the bees. This sugar is to be made into a syrup consisting of two parts sugar to one part water. First bring the water to a boil and then stir in the required amount of sugar,

Continued on page 10

The Poultry Situation

by W. A. Maw

POULTRY continues to be one of the profitable cash crops essential to all general farm enterprises. The poultry industry, in Quebec especially, has shown steady progress over a period of years. The quality of the stock raised and of the eggs produced has also improved steadily as a result of the better practices being followed. Quebec province is normally one of the major exporting points to the British market. With that outlet closed we are fortunate indeed to have Montreal, one of the best market centres for agricultural products.

In spite of the disturbed market situation, due to the war in Europe, the costs of production have remained much the same as a year ago. Feed prices are actually slightly lower and prices for both eggs and poultry meat are about the same. The demand for both eggs and poultry meat continues to be good. Seasonal fluctuations are naturally apparent just now when flocks are being changed over from adult to young stock with the resulting differences in the class of eggs produced and the class of meat stock being offered for sale.

The market prospects for the winter season appear to be good. Low quality eggs are in good demand, thus holding the market price for the more limited fresh higher-quality stock. The possible early movement of storage stocks of eggs appears favourable at present. The prospects for moving the poultry meat stock are also good, a keen demand showing for large chickens and light-weight turkeys.

Since Canadian poultry products are sold on a graded basis, the producer of high quality eggs and meat obtains values due for the extra care given the producing stock and its products.

The sale of perishable foods, such as eggs and meat, on a graded basis is logical, since the production of and the care of these prior to and in marketing can only be done through a complete understanding of the factors influencing the edible quality. The quality of eggs may be affected by off-flavoured foods or by holding in warm rooms. It is, therefore, necessary to make sure that the laying stock is fed a properly balanced ration of laying mash, scratch grain and green foods, as well as clean water and grit and shell. Unless the stock is confined to a definite area on clean soil and forage, it would be advisable to confine them to the laying house. Sanitation in all respects must be maintained in the houses; clean hoppers for food and clean nests are very important.

The handling of eggs after they are laid is of utmost importance in order to maintain fresh quality. Collect the eggs at least twice daily and cool them immediately. If they are to be shipped on a graded basis, it is advisable to candle and grade them according to the regular grades and pack

them in clean cases for shipment daily. For best returns all eggs should be marketed at least twice weekly.

All poultry meat stock, whether it be fowl (adult) or young chicken, should be fattened before being sold. The fattening or finishing process adds fat to the carcass and softens the muscles, thus improving the quality generally. Most stock should be confined for fattening from ten to fourteen days. If crates or coops are not available for such feeding work, the stock should be confined to pens.

The method of feeding stock for fattening is slightly different to that used for growing or laying stock. A wet feed is given two or three times daily, allowing only sufficient to satisfy the birds immediately. All feed not eaten should be removed. The ration should be made up of at least three common cereals, such as corn, wheat, oats, barley or buckwheat, in a ground form, and mixed to a wet state with skimmilk or buttermilk. If liquid milk is not available, beef meal and powdered milk should be added to the cereals at the rate of three-and-one-half pounds of beef meal and two-and-one-half pounds of powdered milk. One pound of salt is generally added to the ration. Stock finished in this manner will be in a better condition for dressing as high quality stock.

The strictest attention should be given to all matters pertaining to the production of both eggs and poultry meat if a profitable return is to be obtained.

THE PROBLEM OF FARM LABOUR

During the present war period the question of farm labour is becoming an important one. It is becoming difficult to secure good farm labour and the problem created by rising wages is causing concern to farmers whose incomes have not increased in proportion.

In connection with labour costs, all studies of farm management which have been made show that day labour is the most expensive form of farm labour. Help hired by the month is somewhat less expensive; men hired by the year are the least expensive.

Many farm businesses are so arranged that extra help is needed only at certain rush periods of the year, especially during the summer period from seeding to harvest while during the winter there is not enough work for the hired man. This uneven distribution of work is expensive, and the addition of other enterprises such as cattle feeding, winter hog and poultry production, might help the situation.

Can Corn Growers Stay in Business

by W. E. Whitehead

UNLESS some drastic measures are taken soon to control the corn borer, farmers will have to give up growing sweet corn for market. This is the situation which is facing the all-important corn industry in the Province of Quebec today. Corn borer infestations are steadily increasing in this province and this season has been the worst in our history. In many plantings half of all the cobs have contained borers, and in others every plant has been infested. From the writer's personal knowledge at least one merchant has ceased to handle sweet corn, because he found he could not sell it. Complaints from growers, salsmen and housewives have been numerous and widespread.

Sweet corn damaged by borers cannot be sold, and the fact that every ear must be examined before being sent to market increases production costs. Damage to field corn is just as serious but often goes unnoticed. Yield, however, is reduced and harvesting made more difficult because of "lodging".

Life History

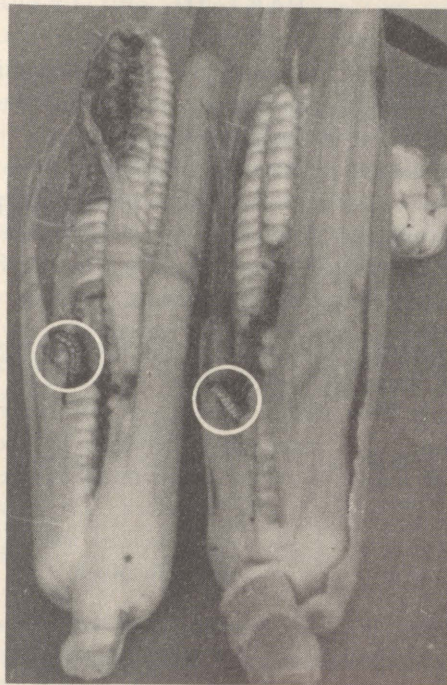
In order that one may better understand why certain control measures are recommended, the life history of the European corn borer is given briefly.

The caterpillar is about an inch long. It is light yellow or brownish in colour with many small darker spots on the body. It passes the winter in corn refuse in the field and occasionally in other thick-stemmed plants. The following spring the caterpillar changes to a pupa, or chrysalis stage, from which the adult, a creamy-yellow or brownish moth, emerges late in June or early July. This adult lays eggs on the undersides of the leaves, from which caterpillars hatch and commence boring their way into all parts of the plant. Heavily infested plants become much weakened and frequently break over, causing the stalks to become "lodged". The breaking down of the tassel is often the first indication of the borer's presence.

Control

The European corn borer can only be successfully controlled by cultural methods. Dominion and Provincial officials are engaged in an effort to discover other means of control, but until such are available those now recommended should be followed. Corn crop remnants must be completely disposed of before the beginning of June the following year, either by feeding, ploughing, burning, or a combination of these three practices. It should be remembered that the caterpillars spend the winter in crop refuse and if this is destroyed, the caterpillars are destroyed too.

The following control measures *must* be followed: (Corn placed in a silo is no longer a source of danger and is therefore not included here).



THE FARMERS' ENEMY

1. Cut all corn as low as possible in order to remove the bulk of the borers with the stalk.
2. Feed as much of the corn remnants as possible. Where this can be practised, it is easier than burning it.
3. Uproot and burn, or otherwise destroy, all sweet corn stalks which cannot be conveniently ploughed or dug under as soon as they have dried out. This applies to all gardens, however small.
4. Plough under as deeply as possible all infested stubble and refuse in field and garden, before June 1, so carefully that it is all completely covered.
5. Dispose of all corn remnants brought to the surface by farm implements during spring operations and have a general clean up around the farmyard and garden before June 1.
6. These control measures apply to every grower of corn and if they are carefully observed, next year's borer infestation should be appreciably reduced.

The axiom "A job worth doing at all is worth doing well" is very applicable in corn borer control. Half measures are of little use, as a few stalks left uncovered in the field may contain enough caterpillars to start a serious infestation the following year. All corn growers within a community should take equal pains in disposing of corn refuse, and this applies whether one grows a few rows in the back garden or several acres. Co-operation is essential and the welfare of the community should be considered as well as

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Swine Feeding

by E. W. Crampton

PART III.—NUTRITIONAL REQUIREMENTS OF PIGS

IT IS all very well to describe the special composition of feedstuffs and to know that tankage contains more protein than barley; but unless we know how much protein and how much fat, or minerals, or vitamins, pigs of different ages or classes need for normal growth and production, our information about feeds is largely useless. Before any attempt can be made to put together a balanced ration, we must consider pig feeding standards.

Feeding standards are tables giving the amounts of the nutrients of feeds which are needed by animals. The information has been obtained from years of experimental feeding work. Such tables may, therefore, be used with confidence as guides to animal requirements. There is just one major difficulty—feeding standards are complicated and hence not always easily used by feeders who have little time to do the arithmetic necessarily involved.

Fortunately, it is not necessary that every feeder be prepared to calculate the exact food requirements of his pigs. The facts of the feeding standards can be reduced to somewhat more practical form by expressing the values in terms of the makeup of the ration. Thus, instead of worrying over the fact that a 100-pound pig needs half a pound of digestible protein and 5 pounds of feed (meal or its equivalent) daily, we may arrive at the same result by consulting the table below where it is seen that if a pig ration containing 15% of protein is used, these protein requirements will automatically be taken care of. Protein is only one factor which must be taken into account. The minerals, vitamins, and total energy needs also are important.

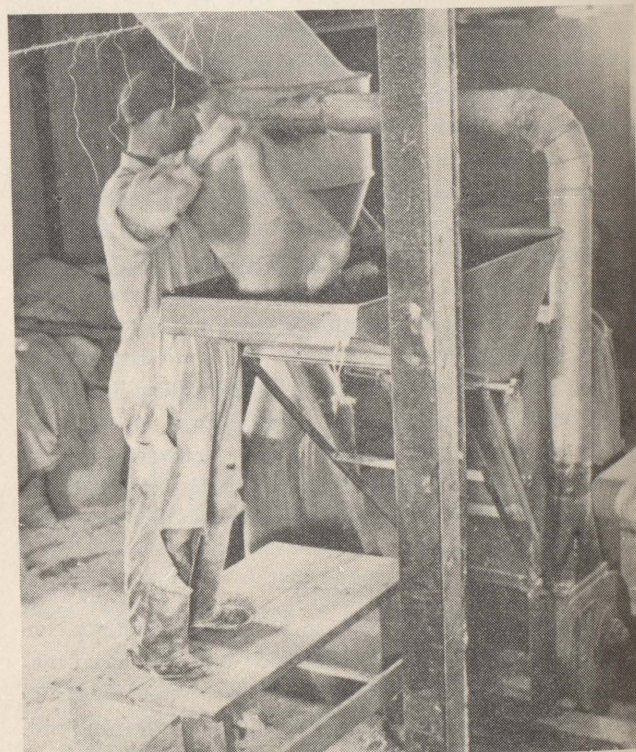
In general, pigs of similar weight, and pregnant or nursing sows, may be grouped as to feed requirements. A practical grouping of the classes of swine in so far as feeding needs are concerned puts together: (1) market pigs weighing less than 100 pounds each and the nursing sows, and (2) market pigs above 100 pounds weight and all other hogs. Differences in the food needs of the pigs within either group are satisfactorily met by different amounts of the ration allowed. This means that only two kinds of ration need be arranged for, which makes the problem quite simple.

There is one further factor which must be taken into consideration, namely—whether or not skim milk is used. Skim milk or buttermilk are high protein feeds and when the slop is made up with either of these liquids the type of meal mixture needed differs from that necessary when water is the only liquid fed.

These conditions may all be summarized in table form, showing the percent of protein which a suitable pig meal mixture should have, depending on the class of pigs fed and whether water or milk is used in making the slop for feeding.

PERCENT PROTEIN NEEDED IN PIG MEAL MIXTURES

Class of pig to be fed	When skim milk is used	When water is used
GROUP I Market pigs to 100 lbs. weight and Nursing sows.	12% Digestible or 15% Crude Protein	15% Digestible or 18% Crude Protein
GROUP II Market pigs over 100 lbs. weight and breeding herd excepting nursing sows.	8% Digestible or 12% Crude Protein	12% Digestible or 15% Crude Protein



MIXING FEEDS AT HOME

In making up the ration for feeding, use 3 pounds of liquid (milk or water) to each pound of dry meal for the pigs of the first group and $2\frac{1}{2}$ pounds liquid per pound meal for those of group two.

In addition to the correct protein level, pig meals should contain less than 8% of crude fibre. They should be

Continued on page 9

Growing Vegetables on Muck Soils

by J. F. Snell

ONE of the earlier enterprises of the Quebec Soil Survey was the mapping and analysis of muck soils in districts adjacent to the city of Montreal. Such soils, so little appreciated in the past that some farmers burned off the upper layers in order to cultivate the more solid subsoil, had elsewhere been found to be peculiarly suitable to the growing of vegetable crops. Having knowledge of the results obtained in some places in Ontario and the United States, the Quebec and Dominion Departments of Agriculture saw the possibility of supplying the great Montreal market from near-at-hand sources, rather than importing so much from a distance.

To explore this possibility systematically a sub-station of the Dominion Experimental Farms was established in 1936 at Ste. Clothilde in the County of Chateauguay. This station has nearly eighty acres of land, of which all but a small area (upon which the buildings and some experimental orchards stand) consists of black muck, about two feet deep near the buildings but increasingly deep as the river is approached, underlain by a peculiar jelly-like material of lighter colour. About one third of the muck area is now under cultivation and excellent crops of celery, potatoes, cabbage, onions, tomatoes and other vegetables are being obtained under methods of fertilization and culture prescribed by Mr. Fred Browne of the Horticulture Division, Ottawa, under whose direction the sub-station is conducted.

On Wednesday, September 18th, the Montreal Local of the Canadian Society of Technical Agriculturists, accompanied by a few members of the Macdonald College Local, paid a visit to the Ste. Clothilde farm. The horticulture aspects of the work were explained by Mr. Browne and Dr. H. Hill and the engineering aspects by Mr. J. M. Armstrong. The soil is irrigated by gravity flow from a ditch at one side of the farm to another ditch, only about four inches lower, at the other side. By means of a small gasoline engine water is pumped from the river to fill the higher ditch to a level of about eighteen to twenty-four inches below the surface of the soil. The soil, which takes up fifty percent more than its own weight of water, becomes so moist that water can be squeezed from it by the hand. The moisture supply can be regulated by raising or lowering the level of the water in the irrigation ditch. Mr. Armstrong stated that the original drainage and irrigation system had been devised by Prof. L. G. Heimpel of Macdonald College.

The visitors were informed that the muck soils of the Province are usually deficient in potash and in some minor elements, such as boron and copper, but were very rich in nitrogen and sulphur. Best results on this farm had been

obtained by the application of muriate (but not sulphate) of potash, with a little readily available nitrogen and a moderate amount of phosphoric acid.

The beautifully clean, crisp celery, which at the time of the visit was being harvested for use in storage tests, had been treated with a spray to repel the tarnished plant bug. Experiments with fungicides were being conducted with the co-operation of the Departments of Horticulture and of Plant Pathology of Macdonald College. Varieties were being compared, for example several of potatoes, all of which were producing large, scab-free tubers, though Mr. Browne appeared to favour Green Mountain on account of cooking quality. A non-blanching variety of celery was giving crisp green stalks.

As regards the supply of the Montreal market the findings of this farm would appear to assure the realization of the hopes of its founders, providing the fortunate owners of muck soils can adapt them to their own conditions. The results of the soil survey are on record and can be used to suggest modification of fertilizer treatment. The irrigation problem is obviously one to be solved for each particular district.

SWINE FEEDING

(Concluded)

medium or coarsely ground. Fine grinding of pig meals is a serious mistake and can be justified only in such a special case as when weed seeds must be destroyed.

Commercially prepared pig meals are usually finely ground unless one specifies otherwise. Pulverizing such products as oat hulls or barley hulls does not make them any more digestible and one might suspect the fine grinding was to hide such materials. It is far better to forget the appearance of the coarse material, unless there is enough of it to raise the fibre above 8%, and have the ration in more granular form. The pigs will actually eat more of the coarsely ground ration and hence gain more rapidly.

In the next and last article of this series, formulae will be given for pig rations which have been proven satisfactory over a period of years of hog feeding.

The human body contains a dozen or more mineral elements all of which could be bought separately as chemical substances for about thirty cents. Yet, lack of a tiny trace of even one of them can completely alter the state of health. Take copper for instance. If an ordinary one-cent piece could be eaten and digested slowly it would give a person enough copper to last twenty months. Yet the lack of even this apparently trivial amount may cause pernicious anaemia.

PREPARING BEES FOR WINTER

Continued from page 5

taking care that the latter is thoroughly dissolved, otherwise it will re-crystallize in the combs. Heat may be used to hasten the melting of the sugar but care must be taken not to scorch it, as scorched sugar is fatal to the bees.

There are a number of feeders available but the No. 10 honey pail feeder with thirty or forty-five holes punched in its cover is the best. Fill the pails with syrup and invert over a honey board on top of the colony; one or more can be given at a time. Cover with an empty super to prevent outside bees reaching the syrup. It is best to do the feeding in the evening after all bee flight has stopped.

Protection

Bees may be wintered in cellars or outside in packing cases. If one has a good cellar the cost of building cases can be avoided, but if no such cellar is available the building of cases is **preferable**.

A good cellar is one that can be kept dark, dry, well ventilated, free from vibration, and at an even temperature of about 45 degrees Fahrenheit throughout the winter. If these conditions cannot be provided the cellar may be a dangerous place to put the bees. For a small number of colonies a corner of the basement beneath the beekeeper's residence may be partitioned off with satisfactory results.

If wintering is to be done in a cellar the bees should be brought in immediately after the last good cleansing flight they are likely to get. In most districts this usually occurs early in November. It is better to bring them in a little early than to leave them exposed to cold stormy weather waiting for a flight they may not get. Bring the colonies in with as little disturbance as possible. The arrangement of the colonies in the cellar is a matter of taste, but do not overcrowd; ten cubic feet should be allowed per colony plus passageway between colonies.

If the cellar is on the warm side replace the hive covers with some porous material such as burlap and leave hive entrances wide open; if the cellar is inclined to be cold leave the hive covers on and reduce the hive entrances. If mice are present trap or poison them.

If the bees are to be wintered outside place them in their cases during the latter end of September just before feeding time and give bottom and side packing. After feeding the top packing may be added at any time.

The cases may be of a size to hold one or more colonies but no matter how many colonies the case may hold it must be large enough to allow for at least four inches of packing between the colonies and the case walls on all sides. The case must also be water-tight, so as to keep the packing dry. There must be an opening in the case walls opposite the entrance of each colony and a tunnel through the packing so that the bees may take a flight whenever the weather permits. The flight hole in the case should be

fitted with a revolving block so that the entrance may be reduced during extremely cold weather. It is also advisable to have a one-inch hole in each end of the case and near the top to allow circulation of air above the top packing to carry off any moisture that may accumulate there. Forest leaves, planer shavings, cut straw or chaff may be used as packing material.

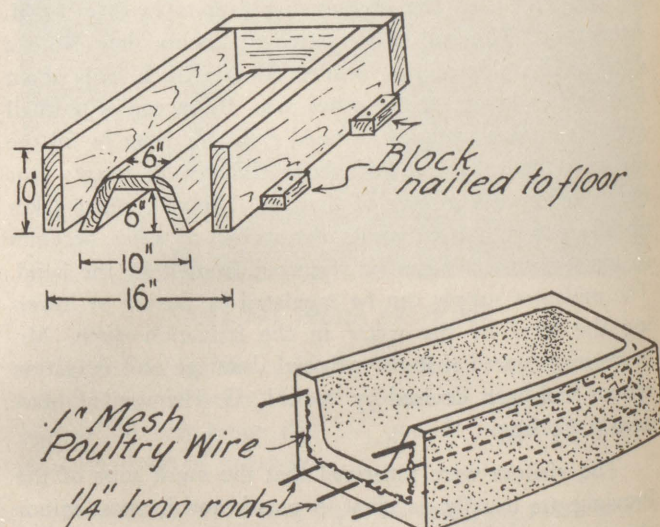
A good windbreak is of as much importance as good cases and packing. If no natural windbreaks are present a slatted wooden fence about seven feet high should be provided. The apiary should be protected from wind on at least three sides, all four if possible.

MAKING CONCRETE HOG-TROUGHS

Hog-troughs which are water tight can readily be made of concrete by constructing a simple wooden form. It is important to use the proper concrete mixture to make the trough both water-tight and strong. A mixture consisting of 1 bag of cement with $1\frac{1}{2}$ cubic feet of sand and $2\frac{1}{2}$ cubic feet of pebbles is recommended for this work. The mixture must of course be mixed with as little water as possible but enough so that it can be packed easily into the forms. When moist sand is used about $3\frac{1}{4}$ gallons of water will probably be required for each bag of cement.

Some reinforcing iron is required in a hog-trough to prevent cracking of the concrete when it is handled or affected by changes in temperature. Ordinary blacksmith iron can be used. The bars should be bent at the ends so they go completely around the trough. If one bar is too short use a second one to finish the job by letting the rods lap about 6 inches at the joint.

After placing the concrete, the rods and the chicken mesh, the troughs should be allowed to set for 5 to 7 days before the forms are removed.



DESIGN FOR CONCRETE HOG-TROUGH

AUTUMN WORK IN THE GARDEN

The wise gardener does a thorough job of cleaning up his garden in autumn. The removal of all dead plants improves the appearance, helps to control insects and diseases, and makes way for fall planting.

Lilies, narcissus, and tulips are always autumn-planted. Lilies are normally moved in September, narcissus and tulips as early as August, but any time up to freeze-up will do.

Depth of planting for tulips is about six inches but planting a foot deep has given results.

The best planting time for peonies is about the end of September for northern regions, and perhaps earlier farther south. They should be set in holes previously dug two feet deep, the bottom of the holes being filled with rotted manure mixed with some good soil. The peony is then planted with the crown at a depth of 2 to 3 inches below the surface.

For hybrid tea roses, a mound of a foot of soil over each bush is good and, further, the whole bed should be mulched. Another recommended treatment is to dig the bushes, tie them in bundles, lay them in the bottom of a four-foot pit, fill it with straw and erect a roof to shed the rain. This treatment has given fairly good results on the Beaverlodge Substation, reports John F. Moore, Agricultural Assistant.

Tender perennials appreciate a light mulch to hold the snow, which prevents alternate freezing and thawing.

A system to obviate partly the objection to autumn planting of trees and shrubs, for which spring is the recommended time, is to dig the plants in autumn, heeling them in some sheltered spot where the snow will drift and protect them, nearly covering the whole plants with earth.

A good wind-up for the vegetable garden is an autumn application of rotted manure.

GUARDING OUR FOREST WEALTH

The Dominion and Provincial Governments, forest industries and private protective associations all share in the task of protecting our forests against the ravages of insects. Ceaseless watch is necessary to discover insect infestations when they start, to avoid or at least reduce widespread losses to standing timber. Over two thousand observers, stationed in all parts of Canada, make regular reports on conditions in their districts to Ottawa.

These reports show that in 1940 the territory invaded by the spruce sawfly has spread somewhat in a westerly direction, new records being obtained from Muskoka and Lake Nipissing in Ontario and Papineau and Pontiac counties in Quebec. Spruce budworm is also reported to be on the increase in central and eastern Canada and control measures are being sought. Another insect which seems to be on the increase in the Eastern Townships is the bronze birch-borer which as its name suggests, attacks birch trees.

FEW TULIPS OR OTHER BULBS AVAILABLE IN CANADA THIS YEAR



In the spring of 1941 there will possibly be substantially less bloom in gardens in home grounds and parks throughout Canada than has been seen in recent years. The reason is that this fall no tulip or other flowering bulbs will be available from Holland. Formerly more than 98 per cent of all tulips came from that country and 25 million of a total of 32 million of all kinds of other bulbs also came from the Netherlands. Of the remaining 7 million about 3 came from France, Belgium, the Channel Islands and Germany, $2\frac{1}{4}$ million from the United States and over half a million from the British Isles. The remaining $1\frac{1}{4}$ million, mostly Easter lilies, came from Japan and other countries. While there is a possibility of some imports to Canada from the United States and the British Isles, it is not expected they will be as much as in former years. Imports from France, Belgium and the Channel Islands while these countries are under German occupation, are also not possible. Japan, however, will be able to send its usual shipments.

For several years the culture of flowering bulbs has been a growing industry in British Columbia, but it has as yet only reached the point where but a fraction of the demand from all parts of Canada can be met. Up to the present the British Columbia growers have not been able to compete successfully with the low cost of Dutch bulbs.

It is expected that seedsmen will have available for sale this fall not more than 10 per cent of their usual supply of bulbs, and the size is not likely to be equal to that which they were formerly able to offer.

Where a lawn is thin, it is a good practice to apply a little seed each fall. This will materially assist in maintaining the dense turf so much desired.

COOPERATION AND MARKETING

A page of interest to the members of farmers' cooperatives.

THE BASIC PRINCIPLES OF COOPERATION

THE struggles and successes of a group of weavers in the Lancashire village of Rochdale a hundred years ago have provided the inspiration for most present-day co-operatives. The principles on which they worked and the methods they followed, with minor adaptations here and there, have provided the basis for successful co-operative enterprises for nearly a century.

It was in 1844 that this group of twenty-seven men and one woman, after a year of saving and study, launched the venture of a co-operative store. They were not the first co-operators. Attempts to establish co-operatives had been made in England as early as 1822 but they met with slight success. The Rochdale Pioneers were the first co-operators to be both clear about what they wanted to do and practical in their method of doing it. Their story has often been told and should be carefully read by all interested in co-operatives. It is vividly related in "Up from the Shadows", by Michael Becker.

The Rochdale Pioneers established seven principles which have since been found to be fundamental and necessary to co-operative success.

1. *Universality*.—Membership was open to all men and women irrespective of race, color or creed. No one who wished to join their number in good faith was ever shut out from a share in the ownership or from participation in the organization.
2. *Democracy*.—Each member had one vote in the government of their organization and all had equal rights. Influence in the affairs of the association did not depend on the number of shares a member owned.
3. *Equity*.—(a) A fair wage was paid to capital invested and to labour hired. It was intended that capital should not be given a dominant position so interest was usually paid at a fixed rate. Employees were paid equitable and just wages and their right to collective bargaining was recognized.
(b) High quality in goods and fair weights and measures in handling them was insisted on.
(c) Current prices were charged and the net surplus on operation was returned to the members in proportion to their use of the services. These returns came to be known as "patronage dividends."
4. *Economy or Efficiency*.—"No credit should be given or required." However otherwise credit trading may be regarded, it is a method which necessarily creates additional expense. The Pioneers desired to cheapen the cost of the goods and to eliminate all forms of waste so that their own needs could be more easily satisfied.

5. *Publicity or Education*.—Not only were there no trade secrets but special provision was made to insure that the members understood the principles on which the business was run and were able to take an intelligent part in it. Funds were set aside for this purpose and for the extension of the co-operative movement.
6. *Unity*.—United as the members were by their economic aims, interests of politics, religion or race were kept in the background and a policy of neutrality was maintained on such questions, within the scope of their co-operative organization. Their willingness to co-operate with other co-operatives soon resulted in the organizing of the Co-operative Union and the Co-operative Wholesale Society.
7. *Liberty*.—Members were free to remain in the organization or to withdraw from it. There was no compulsion to use its services. They were at liberty to hold their own religious and political convictions and to do anything and everything save those things that would injure the interests and welfare of the society as a whole.

RECORD HOG MARKETINGS

Marketing of hogs in Canada during July and August 1940 continued at record volume, averaging 75,000 per week as compared with 50,000 to 60,000 during mid-summer months in former years. During the 35-week period January 1 to August 29, 1940, hogs graded at Canadian stock yards and packing plants totalled 3,023,633, an increase of 45 per cent over the 1939 gradings during the corresponding period. It is anticipated that hog production in Canada in 1940 will be the greatest recorded.

1940 SUGAR CROP

The 1940 maple syrup and sugar crop was larger than in 1939 and prices were better. On the basis of 10 pounds of maple sugar being equal to 1 gallon of syrup, the total production in 1940 is estimated at 3,099,000 gallons, an increase of more than half a million gallons over 1939. The value of the 1940 crop is estimated at \$4,209,300.

LICENSED FARM EXPORTS

Among the Canadian agricultural products prohibited in war time from export from the Dominion, except under licence, are calves' stomachs, for making rennet used for making cheese, fertilizers, fibre flax, fibre flax seed, cheese, leather, hides, skins and wool. Wool includes wool on the skin, tops, rags, waste and yarn.

SCHOOL PROBLEMS AND VIEWPOINTS

HOW CAN THE TEACHER HELP?

by D. J. Seiveright

WHEN all over Canada people are beginning to catch the enthusiasm of the British, and wait only to be shown how best they can use their time and talents for the general good, teachers have a contribution to make which is unique. No matter how young and inexperienced the teacher, nor how isolated her school, she is a guardian of a part of Canada's greatest treasure — the children of to-day, the citizens of to-morrow. This being so, Canada's problems are her problems, and weak and inexperienced though she may feel herself to be, she must put her will to the task and use the strength and intelligence which she does possess.

Her first task is to discover what some of Canada's most pressing problems are. Suppose we list a few.

1. *To achieve and to maintain a lasting national unity.* Not only does the question of two great races existing side by side in the same state create difficulties, but geographically Canada is split in two by the rock-bound Canadian Shield which pushes southwards almost to the American boundary at the Great Lakes. To the east and to the west all sorts of conflicting interests tend to pull the nation apart.

2. *The problem of a vast and undeveloped country whose people are few and already burdened with heavy taxation; a country waiting for a great future, but with too small a population to make a rapid development possible.* In the meantime the vast but necessary network of railways piles up yearly a staggering burden of taxation to meet its deficits.

3. *Lack of general interest in the political and national development of the country, and often a lack of leaders able and willing to devote their time to the service of their country.*

4. *A general blindness to our danger and indifference to our fate still far too prevalent in many parts of the country.* The attitude that we are so safe and so comfortable and that surely nothing can happen here.

Having discovered what a few of the problems are, what can the teacher do about it? How can she, in her little school room, even touch the fringes of these problems? But her pupils, the boys and girls whom she teaches to-day must to-morrow tackle these problems, just as the men and women of to-day, taught or mis-taught as the case may have been by the teachers of yesterday, are facing these problems now. Surely the teacher's first step is to try to discover whether any of the existing difficulties have been fostered or exaggerated by faulty or careless teaching.

Let us look once more at the suggested problems. What, for instance, is being done in the English-Canadian

and the French-Canadian schools of this country to train children to feel that no matter what their language they are all Canadians, and that each group has its own peculiar contribution to make to Canadian life and Canadian culture? Any teacher, anywhere, can help in this, to give her pupils a greater appreciation of, and sympathy for all types

Continued on page 22

A MESSAGE FROM PRESIDENT JONES

A letter has been received from Mr. H. W. Jones of Bedford, President of the Provincial Association of Protestant School Boards commending the Journal and giving some interesting information regarding the association which for lack of space we can quote only in part.

Mr. Jones says:

"From its inception our Association has consistently stood for the advancement of all interests concerned with rural school matters. It is an organised medium of presenting the views of the rural schools of all standings—from Elementary to High School—to the Protestant Board of Education. The Provincial Association of Protestant School Board is, as well, in a position to assist the Board of Education on any questions affecting rural schools that may be referred to it from time to time. The Department of Education is always represented at our annual meetings and an excellent opportunity of discussing school problems at first hand is thus afforded to our members both on the convention floor and in private discussions in the lobby.

Recent items brought up for conventional discussion range from the value of milk in school lunches, collective assurance on automobile transport for schools, uniform system of school accounting, arrangements for maintaining school staffs during the present times, and social welfare work in schools.

"Elementary, Intermediate and High Schools are represented in our Association, and new members are welcome. Our membership figures show an increase of 65% this year over the corresponding period of last year. School Boards wishing to join may communicate with Mr. A. Whitehead, Chairman, Membership Committee, Bury, Que. for details."

An error in our last issue listed Mr. A. W. Whitehead as the secretary of the Association. In addition to his duties as chairman of the Protestant School Board at Bury, he is as stated above, Chairman of the Membership Committee of the Provincial Association. The executive officers of the Association as elected at the Annual Meeting on September 19th are as follows:—

Hon. Pres.....	Dr. C. L. Brown, Ayer's Cliff
President.....	H. W. Jones, Bedford
Vice-Pres.....	Chas. Slack, Waterloo
Sec'y-Treas.....	A. R. Meldrum, Shawinigan Falls

THE WOMEN'S INSTITUTES PAGE

A section devoted to the activities of the Quebec Institutes and to matters of interest to them.

MESSAGE FROM MRS. WATT

MRS. ALFRED WATT, President of the A.C.W.W. has broadcast to all members an appeal for 'prayer without ceasing'. "To the Country Women of America, Canada, and other lands: I speak to you as president of the Associated Country Women of the World, to which most of you belong, to beg you to intercede with Almighty God in prayer without ceasing, until the black shadows pass from this, His world. I ask each of you to make your supplication known in all the temples of all the faiths you hold. I ask you to plan that when you arise from your knees, there is another to take your place so that entreaty may be constant and there be a countrywomen chain of prayer in every land. . .

Country women, who live by the soil, view the miracle

of seed time and harvest and the resurrection of growth, and they know that in God's purpose there has been renewal of life and continuity since time began. There will always be hope and new life for the stricken among our sisters and always prayer that they may live again on their own fields and see the rebirth of their own land.

You have chosen me as your leader through all these troubled times. We have rejoiced together and now we mourn together.

But I believe in prayer.

I beg each of you to be a living link in a chain of prayer which will keep together in spirit and in faith the country women of the world."

INSTITUTES AT THE C.N.E.

The Women's Institutes of Ontario had an exhibit at the Canadian National Exhibition, illustrating their activities in peace time and war time. These exhibits were displayed in the long gallery of the Women's Building.

There was a knitting marathon lasting for three days. On each of the three days, six entrants from each organization knit in half-hour shifts from 12 to 8 p.m. Scarves for Air Force, Army and Navy were knit according to Red Cross instructions.

NUTRITION IMPORTANT

Service begins at home. In many ways the homemaker working in her kitchen can make a contribution which, if repeated in thousands of homes, will have a tremendously beneficial effect from a national standpoint.

I am sure that all who listened to the talks on nutrition recently given over the air had the fact brought home to them that one of our duties during these war days is to use those foods which contribute to good health, and which combine to make nourishing, wholesome meals.

At this time should we not be thankful for the abundance and variety of foods produced on Canadian soil — Canadian wheat, and other grains, milk, cheese and butter, and other animal fats, fruit and vegetables, particularly potatoes, eggs, poultry and meats, honey and maple syrup? We should appreciate having all these in sufficient quantity to meet our needs.

NOON HOUR AT SCHOOL

by Ruth B. Rorke

SCHOOL days are here again, in fact the first term is well begun. Most children are glad to be back at

school (though they may not admit the fact) to see the pals they have not seen for two long months.

Problems of the rural schools in many respects are different from those of the city. One great difference is that in many cases the child in the country cannot get home during the noon hour to have dinner with the family. That means a long day at school. For a few it means hurrying home, gobbling a meal, and rushing back to be in before the bell rings — a practice to be discouraged.

The noon recess is provided so that the child may obtain his meal and at the same time have some relaxation to prepare him for the afternoon work. The nutrition of the young child is, of course, of prime importance. What can be done to make the meal at school more palatable and more nutritious? Without a doubt there is greater response mentally when the body is well nourished.

The Lunch from Home

The sandwich lunch, easily packed into box or tin pail, has always been a favourite. This kind of lunch is fun when it takes the form of a picnic but it may not prove to be so exciting when it is the noonday meal five days out of seven for more than thirty weeks of the year. A nice firm tomato, a little lettuce, celery, or salad mixture in a jar will add interest. A few dates, figs or raisins along with some plain cookies can be picked more easily than soft iced cake or pie. That baked apple, or canned peach, left over from dinner will pack nicely into a small jelly glass or jam jar, but just be sure it has a tight cover. Tuck some of these into the lunch box. They will help to relieve the monotony.

Concluded on page 24

DESIGNS FOR LEARNING

Minds are like parachutes, they function only when open.—Lord Dewar.

SCHOOL DAYS

"SCHOOL days, school days, dear old Golden Rule days", —the old rhythm presents a picture of a ruddy-faced lad off to school in his bare feet, with primer and sandwiches wedged into his improvised school bag, trudging unhappily to learn the rudimentary 3 R's, and to get an idea or two about history and geography. He soon abandoned the pursuit of learning, however, to get at the real job of making a living, unless perchance he was specially ordained to become a minister to heal the minds of men, or a doctor to heal their bodies.

But these hand-sickle ideas of education are being abandoned. We grasp in our hands new instruments — instruments as modern and true as the chrome-plated dials on a bomber. The progressive school with its well-trained teacher, its well-lighted, well-heated, home-like class rooms,

* * *

TONIC FOR THE TOWNSHIPS

More night students go to St. Francis College in Richmond than day students. The Community School held there has attracted about twenty percent more students than are enrolled there in the day time. The children number around two hundred and ten, the adults close to two hundred and sixty. Large numbers of people come miles from the surrounding districts, and the school yard looks like a busy parking lot; the lighted black and yellow sign of the Community School stands like a beacon guiding the crowds.

Inside the schoolhouse one hears a constant "Pardon me" and "Excuse me" as people move to go to the folk dancing, to their classes, or to the films. The book table looks like a grain field after a grasshopper plague when the crowds have finished putting down their dimes and quarters for the various pamphlets and books. Several courses had to be divided into smaller groups. The instructor in dressmaking required five assistants the second night of the school. Motor Mechanics and other courses were crowded.

The registration at the other schools in Lennoxville, Bury, and Ayers Cliff brings the total up to six hundred and fifty. It is expected that the seven hundred mark will be reached before long. This is well above the expected total registration of four hundred. The Service trailer wandering about the countryside four nights a week is becoming a familiar sight.

* * *

L. C. Marsh, Director of Social Research at McGill, and author of *Canadians In and Out of Work*, spoke on the Sirois Report at several of the schools the last week in

its workshop materials available to present life situations rather than textbook mummies to the student; these represent the School of To-day for the Man of To-morrow. And for the man and woman of to-day we have the Adult School—precise, cheerful, and practical, designed to create new men, capable of building and maintaining a new society.

"It is as true a symbol of democracy to see the light blazing from the windows of our schools by night as it is to see the flag flying over it by day". — A statesman said this some time ago commenting on the use of day school buildings for adult school programs at night.

Education For All The People All The Time, — the slogan of McGill Rural Adult Education Service, indicates the end and objective of the adult educator.

September. The Schubert Music Club of Sherbrooke sent several of its members to each of the schools on the four nights. They entertained with light classical and folk songs and with trio piano selections.

* * *

Education was the main theme for the first week in October. The Public Affairs class concerned itself with the Act Respecting Protestant Central School Boards. The general assembly took up the hammer and anvil with a panel discussion, and ideas flew like sparks.

* * *

Home Talent Night was the night when instructors and instructed brought out their hidden harmonicas and dancing shoes, and strutted before the crowds. Each town and rural group vied with the others to present the biggest array of talent ever assembled in one Community School at the same time.

ADULT EDUCATION NOTES

by R. Alex. Sim

Two issues of the Montreal Standard featured work in which the Adult Education Service participated:—These were the last issue in September and the first one in October.

The September issue concerned the dramatic work to which the Service lent a helping hand. The play was performed in a building right on the forty-fifth parallel, the entrance to the place being in the United States while most of the building is in Canada. Pictures and a magazine article featured this situation.

The October issue carried the work of the Service itself, showing it at home and abroad. Pictures were taken in the Centre in Lennoxville and in several of the four Community Schools now running.

DEPARTMENT OF AGRICULTURE

Agricultural Activities, Plans and Policies of the Quebec Department of Agriculture.

AGRICULTURAL MERIT AWARDS

Awards in the Agricultural Merit Competition were made at Quebec during the Provincial Exposition. This year marks the fiftieth anniversary of the competition and special recognition was given to a number of men and women who have done distinguished work in agriculture and allied fields.

The decoration of Commander of the Order of Agricultural Merit was conferred upon the following: Rev. Sister d'Avila, in charge of the courses in Domestic Arts at Ste. Martine; Rev. Sister Marie Regis, Rimouski; Rev. Sister Marie, Bellevue Convent, Montreal; Rev. Sister Ste. Cesarine, director of the School of Household Science at Sutton; Mrs. Lacroix, director of the Provincial School of Household Science at Montreal; Miss Vaillancourt, director of the "Cercles Fermieres" and Mrs. Fournier, their Provincial Councillor; Mrs. Jules Hamel; Adrien Morin, Acting Deputy Minister of Agriculture; Leo Brown, Deputy Minister of Colonization; J. H. Lavoie, chief, Horticulture Service, Armand Letourneau, Director of Publicity, Department of Agriculture; R. Summerby, Macdonald College; Father Norbert and Mr. C. A. Fontaine, Oka; l'abbe Jean and l'abbe Sirois, directors of the Agricultural Schools at Ste. Anne de la Pocatiere and at Rimouski; J. F. Demarais, manager and H. C. Bois, secretary of the Co-operative Federee; G. E. Gagnon, Quebec.

In the Agricultural Merit Competition itself, which was inaugurated in 1890 as an encouragement to good farming, three types of medals are awarded; gold, silver and bronze. The competition for the gold medal is open only to those who have won silver medals in previous competitions and three classifications of competitors are recognized: professional farmers, amateur farmers, and operators of demonstration farms.

In the professional class the gold medal was awarded to Mr. Eusebe Landry of St. Lin. The judges awarded a total of 930 points out of a possible 1000 for his excellent farming practices. Mr. W. J. Rodger of Lachute was a close second with a total of 928½ points, and was awarded a special prize. Moise Jolicoeur, St. Gerard Magella was third with 922 points. Joseph Lalonde, Vaudreuil was fourth, and fifth place was won by Albert D'Aoust, St. Hermas. In all, fifteen farmers were entered in this class.

Edward Landry, of the Demonstration Farm at l'Assomption, won the gold medal in his class, scoring a total of 939 points. Among the "amateur" farmers the Ferme St. Charles, at St. Laurent, was judged the best, and the farm at the Ste. Therese Seminary came second.

Silver Medallists

Seventy farmers scored at least 850 points, which won for each of them a silver medal. The ten leading contestants were:—

1. Oscar Laurin—St. Hermas	916	points
2. A. Paquette—St. Vincent de Paul	912½	"
3. l'Assomption College	910½	"
4. Romeo Sedillot—St. Mathieu	908	"
5. St. Remi School Farm	907½	"
6. J. R. Lemay—St. Philippe	903½	"
7. E. Bouchard—Ste. Martine	900½	"
8. J. A. Bissonnette—Les Cedres	898	"
9. O. Gendron—Beauharnois	894	"
10. W. Laberge—St. Chrysostome	893½	"

Forty farmers made between 750 and 849 points and thereby won bronze medals. The first 5 of these were:—

1. E. Lemire—St. Roch West	848	points
2. L. Carpentier—l'Epiphanie	847½	"
3. Jos. Renaud—St. Roch West	846	"
4. R. Rutchot—l'Assomption	845½	"
5. D. Tremblay—St. Edward	845	"

A WORD TO SHEEP RAISERS

It is encouraging to see that since the war began a number of farmers who had given up keeping sheep are planning to start again. The favourable market for lambs and the higher prices offered for wool have been factors influencing this decision.

Graders from the Dominion Department of Agriculture have been busy in Quebec during the past month grading pure-bred rams. As Mr. X. N. Roderique, secretary of the Quebec Sheep-Raisers Society points out, "A lamb graded XXX will bring a good price, but, only well-developed animals weighing at least 100 pounds are put into this class." He claims that raisers do not fatten their lambs sufficiently, which results in lessened demand for good rams and a consequently lower price. After being graded, lambs should be kept in good condition. Farmers will be much more likely to buy a well developed well cared-for animal than one which has received little care or attention.

Record Crowd at Maniwaki

The Maniwaki Exhibition reports a record attendance this year. A feature of the fair was the visit of Premier Godbout, who was accompanied by Mr. George Bouchard, Assistant Deputy Minister of Agriculture in the Federal Government.

ADVICE TO HOG RAISERS

Too many light weight hogs are being sent to the slaughter houses, the Department has been advised. In one week one abattoir reports having received more hogs weighing less than 100 pounds, dressed weight, than those classed as exportable. That week, shippers received from 9 to 9½ cents, while bacon types were bringing 12 cents. In one shipment alone out of 38 animals received, 27 were classed light, with a loss to the shipper on that one consignment of \$33.75.

The situation is serious and should be corrected, because if the markets become overstocked with light weight poorly finished animals, prices will suffer.

Special mention should be made of the penalties assessed against animals which are either too heavy or too light. Animals classed as "butchers", weighing from 160 to 240 pounds live weight are cut \$1.25. Those weighing less than 160 pounds are cut from 75c to \$1.00 while extra heavy specimens are cut between 1.50 and 2.00 per 100 pounds.

Farmers should realize that it is in their own interest to finish their hogs properly before shipping them. It may be that the cost of the extra feed has something to do with it, but a little thought will show that the cost of the extra feed involved is less than the amount that will be lost by marketing underweight animals. The farmers themselves are the only ones who can remedy the situation and avoid flooding the market with a product for which there is no demand.

CARCASS GRADING OF HOGS TO BECOME OFFICIAL SEPT. 30

Hon. James G. Gardiner, Dominion Minister of Agriculture, has announced that on and after September 30, 1940, carcass grading of hogs will be the official method of grading throughout Canada, and live grading of hogs will not be continued thereafter.

Mr. Gardiner explained that this action has been taken to insure more hogs of suitable quality for export to the United Kingdom. The progressive and anticipated increase in hog marketings followed by increased exports of bacon to the United Kingdom make it necessary for a much higher percentage to be suitable for export. During the past two or three years 40 to 45 per cent of the hogs slaughtered at inspected plants have been exported to the United Kingdom, but at the present production level from 65 to 70 per cent of the hogs will be available for export and, therefore, should meet export standards.

Carcass grading of hogs has been in effect on a voluntary basis for about six years. The number of hogs so graded under this voluntary system has increased until it now stands at 62.5 per cent of all hogs graded to date this year.

RECORD PRODUCTION OF HOGS IN CANADA

In the report on the June survey of live stock dealing with the number of hogs on Canadian farms, the 1940 spring pig crop and the number of sows to farrow in the fall of 1940, it is stated that hog production in Canada in 1940 will be the greatest recorded. The 1940 spring pig crop was 39 per cent greater than that of 1939 and farmers also reported an increase of 27 per cent in the numbers of sows expected to farrow in the fall of 1940. The increase in the spring pig crop resulted in a gain of 37 per cent in the number of hogs on Canadian farms at June 1, 1940. The total number of hogs on farms at that date is estimated at 5,882,000, the highest on record.

The increase in 1940 is a continuance of the upward trend in the numbers of hogs which commenced in the spring of 1939. Two years of relatively favourable prices for hogs and an abundance of low priced feed have stimulated hog raising. As a result of the increase in the pig crop, marketings will reach new highs during the remainder of 1940 and the early months of 1941. An increase of over 40 per cent is expected.

BACON AND HAM FOR U.K.

Exports of bacon and ham from Canada during the seven-month period, January to July 1940 slightly exceeded 188,000,000 lb. For the corresponding period of 1939, total exports were 94,700,000 lb. The present bacon agreement with the United Kingdom will terminate on October 31, 1940. Negotiations are in progress for a renewal of the agreement or the formation of a new one.

NEW BEEF CATTLE FIELDMAN

Mr. J. A. McClary, formerly Superintendent of the Lennoxville Experimental Farm, has been appointed fieldman for the Department of Agriculture to do beef cattle promotion work. This news will be of interest to breeders in Eastern Quebec who will now be able to take advantage of Mr. McClary's experience and advice.

The appointment was brought about through the efforts of the Quebec Beef Cattle Association of which Mr. L. C. Roy is the president.

Agriculture in War

"It must be remembered that while agriculture is a vital arm in war, the full impact of the demand for farm products is not felt until accumulated stores disappear and the production areas are restricted. Agriculture may be regarded, therefore, as something of a reserve force, the power of which is not felt in the early stages, and the needs for which and the nature of which can only be accurately determined in the light of developments."

NEW DAIRY COMMISSION OFFICERS

The Hon. Minister of Agriculture announces the following changes in the personnel of the Dairy Commission.

Mr. Nolasque April, director of the School of Agriculture at Ste. Martine, and regional agronomist for the Chateaugay district, is the new president, replacing Mr. H. C. Bois who resigned the position in order to devote his time to the affairs of the Cooperative Federee of which he is the secretary.



N. APRIL

Mr. April is a distinguished graduate of the Agricultural College at Ste. Anne de la Pocatiere, has been for many years mayor of Ste. Martine, and operates a large fruit farm near the American border.

The farmers' representative on the Commission will be Mr. Clarence Goodhue, who has been manager of "Raymondale" farm at Vaudreuil for the past twenty years. He is a director of the Canadian Holstein Breeders Association and has judged at the Toronto Exhibition, at the Royal Winter Fair, and also at exhibitions at New York, Springfield and Syracuse.

The city of Montreal will be represented again by T. Lafreniere. Mr. Jules Cote, owner of the Laval Dairy and president of the Quebec Milk Distributors Association will represent the business interests. Mr. Cote has a wide knowledge of the problems which confront the producers and the distributors of milk.

The new secretary-manager of the Commission is Mr. Peter Nadeau, M.Sc. (Cornell), Professor of Dairying at the St. Hyacinthe Dairy School. He replaces Mr. Oscar Boisvert whose duties as inspector-general of cheese and butter factories, and as chief of the Dairy Products Division at Quebec require his full attention.

The Origin of the Dairy Commission

Quebec was the first province to set up a Dairy Commission. A temporary committee was named in 1931 to investigate the sale of fluid milk. A permanent commission consisting of three members and a secretary was established in 1934, with H. C. Bois, as president. Its first act was to fix milk prices for the Montreal market, and ever since its organization it has carried out its difficult duties efficiently. The commission employs a staff of inspectors whose duties include supervision of butter-fat contents, weights, permits etc. and who are charged with seeing that the regulations of the Commission are enforced.

In its role of intermediary the Commission has adjusted grievances, has seen that quality has been maintained at a high level, has stabilized prices and safeguarded the interests of both producers and consumers.

A NEW CROP FOR QUEBEC FARMERS

Mr. J. H. Lavoie, Chief of the Horticulture Service, is planning an organized effort to harvest the Juneberries which grow wild on the North Shore of the St. Lawrence.

Juneberries (a species of Amelanchier, also known as the Shadbush) are excellent fruits and are in great demand on the Montreal market, where housewives purchase them to make jelly. If some concerted effort to harvest and sell these berries can be made, residents in the regions where they are plentiful will have a new source of revenue.

During the winter it is proposed to send samples of the different jellies which can be made with Juneberries to the canning factories in Canada and the United States, and it is confidently expected that these factories will be anxious to purchase supplies of berries for making jelly commercially.



MR. C. GOODHUE

NEW POLICY ANNOUNCED

THE sheep and swine division of the Animal Husbandry Branch announces a new policy to encourage sheep-raising in this province.

The plan being undertaken in co-operation with the Dominion Department of Agriculture, is to organize clubs whose membership shall consist of owners of pure bred rams, and the object of the plan is to improve quality by using pure-bred graded sires so as to obtain better lambs for slaughter and a better grade of wool.

One or more of these clubs may be organized in each agronomic district, as long as each club has at least 10 members, and any farmer who has bought a pure bred graded ram between September 15 and November 15, 1940, may become a member of a club. Every club member must (1) own a flock of sheep; (2) castrate and dock all his grade lambs when they are two weeks old; (3) dip all his sheep at least once during the year.

Financial Assistance

The Department of Agriculture will make the following grants to club members who buy pure bred rams graded in 1940:

For a ram, aged 2 or 3 years, graded XXX in 1940	\$8.00
For a graded ram lamb, or a ram 1 year old, graded XXX in 1940	5.00
For a ram lamb graded XX in 1940	3.00

To obtain the grants, anyone who buys a ram must send an application for membership in a club to his regional agronomist before the 15th of December 1940. With this application must be sent the registration certificate of the ram, showing that ownership of the animal has been transferred to the applicant.

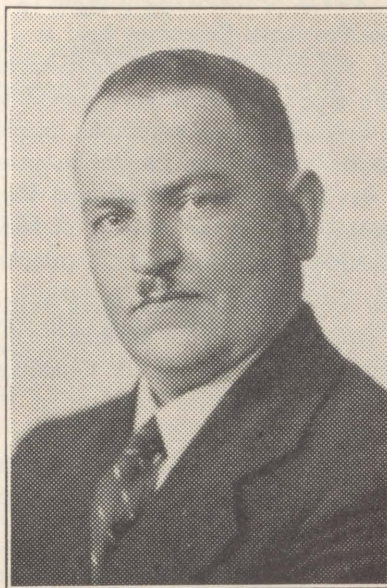
All requests for grants must be received by the Animal Husbandry Branch, Sheep and Swine Division, Quebec, P.Q. before December 30, 1940. No applications received after that date will be considered.

GOOD ATTENDANCE AT SHAWVILLE FAIR

(Reported by T. G. Sevigny)

In spite of two days of cold rainy weather the Shawville exhibition on September 20 and 21 drew a good attendance. Due to the financial situation the "Midway" attractions were missing, but a good programme of horse races provided interest and excitement for the spectators.

An interested crowd visited the industrial building which was filled to capacity by the exhibitors' displays, and many stopped to examine the colourful displays of handicraft work. The horticultural exhibits were very good, and a feature of the Fair was the excellent showing at Clydsdales.



ANDRE AUGER
Chief, Field Husbandry Service

SOME RECENT ACTIVITIES

The Holstein field-day held at Huntingdon on September 12th was attended by a number of breeders and 78 animals were out to be judged. The championships and first prizes were divided amongst W. L. Carr, J. L. Murphy, and Helm Bros.

* * *

Seven hundred people attended a Percheron field day at "Luxiana", Mr. Graul's farm at Vercheres, last month. This was the largest assembly of its kind ever held in the district, and was organized by the Percheron Breeders' Association with the cooperation of Mr. Graul. The National Breweries collaborated by sending eight of their famous stallions to the meeting.

The programme, which was directed by Mr. J. A. Beauchemin, featured an exhibition of steeplechasing in which some of Mr. Graul's racers were ridden, and a showing of about fifteen fine mares by members of the Association. In the evening a film depicting something of the history of the Percheron breed was shown.

The Department of Agriculture was represented by Mr. Pierre Labrecque, Secretary of the Percheron Breeders' Association.

* * *

The government men have started their rounds inspecting breeding stallions. It is important to remember that every stallion destined to stand must be inspected, and that the animals must be ready for inspection at the time and date arranged. It is also necessary to have the 1940 permit ready to hand to the inspector when he arrives.

THE QUEBEC FAIR

The Quebec Provincial Exposition held at Quebec from August 31 to September 7 was a most successful one, considering the unsettled conditions imposed by the war situation. The usual exhibits of vegetables, maple products, honey, handicrafts, etc. were on display to an enthusiastic crowd which was larger than last year, and which showed particularly keen interest in the showing of handicrafts by wives of the settlers from the Provincial colonist areas.

Cattle were out in fair numbers: there were 20 exhibitors showing Holsteins, 13 with Ayrshires, 12 with Canadians and 5 with Jerseys. Among the Canadian cattle the Provincial Dairy School entries took almost all the first placings, yielding only to L. A. Sylvestre in the 2 year old bull class and to Laureat St. Pierre at Lac Etchemin who had senior and reserve grand champion on Pine Ridge Aline. The Canadians were judged by Stephane Boily.

Prof. Gustave Toupin of Oka judged the Ayrshire classes and awarded the male senior and grand championship to J. H. Montgomery on Auchenbrain Charmer. P. D. McArthur had senior and grand champion female on Cherry Bank Bonnie Buttercup 3rd, which also carried off the title of best cow of all breeds at the show. McArthur also had the junior champion male with Cherry Bank on Time, the reserve junior on Cherry Bank Royal Jupiter and reserve senior on Cherry Bank Winter Royal. Junior champion female was Deschambault Snowflake from the Provincial Dairy School at St. Hyacinthe, and their Deschambault Star Suky was judged reserve senior female.

Mount Victoria Farms, Hudson Heights, carried off most of the awards among the 20 Holstein exhibitors, taking all the group classes and winning 7 of the 11 championships. Senior and grand champion male however was Raymondale Silencer, owned by Anthyne Paquette, St. Vincent de Paul, and reserve senior male was Brown Corporation's Brown Rag Apple Pride. Paquette had the reserve junior championship on Des Rapides DeKol Silencer.

Only 5 exhibitors were out with Jerseys to be judged by Stephane Boily; A. Bazinet, St. Hughes de Bagot, R. Bedard, Charlesbourg, Edgar Smith, Danville, O. A. Fowler, Kingsbury and R. Fafard, St. Cuthbert. Edgar Smith won senior and grand male championship with Grayburn Sybil's Observer, and senior and grand female championship on Gleneva's Silver Annie. A. Bazinet had the junior male and female champions and the reserve grand champion male. R. Bedard showed both reserve grand male and reserve junior female.

As usual the Leicesters were the most numerous of the sheep entries, J. H. Couture of St. Augustin taking the major awards in this breed. H. J. Snaden, Danville swept the field with Cheviots and Southdowns, and so did Slack Bros. of Waterloo with Shropshires. A. Denis of St. Cuthbert won with Oxfords and A. Lavallee of Berthierville was the only breeder showing Hampshires.

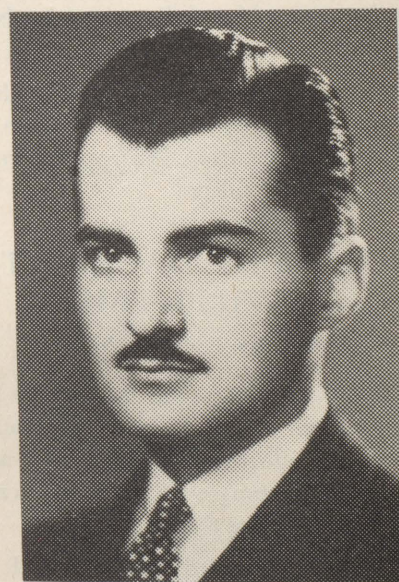
Yorkshires predominated among swine and in this breed E. J. Lemire of Baie du Febvre was the heavy winner. J. M. Charpentier of Princeville was the sole exhibitor of Berkshires. M. E. Sylvestre, Clairaux, had first placing with his Tamworth herd; M. Gaucher, St. Valerien, had first prize boar and M. E. Sylvestre first prize sow of this breed. Sylvestre also won the prize for best advanced registry boar with a Yorkshire and D. Brassard from Plessisville won the similar award for females.

A. T. Cleland, St. Hermas, was the chief winner among those showing Clyde horses; his Craigie Wallace was judged champion male and he placed first in 7 other classes.

Percherons were shown by 24 breeders, and the male and female champions were Miviso, owned by the National Breweries and Aida de St. George owned by Mrs. Thos. Fournier at Montmagny. The Jersey Health Farms had both reserve championships on John Degas and Junette Degas, and also won the special prize offered by the Quebec Percheron Breeders' Association for 2 entries born after January 1, 1938 and belonging to the same exhibitor.

Once again the Canadian horses were out in large numbers, 37 exhibitors showing. M. Bernier, of Becancour, took the male championship on Leonidas de Cap Rouge, and the champion mare was Quinine de Cap Rouge owned by S. Simard of Morigeau.

In the Belgian classes the major awards were taken by the Jersey Health Farms from a field of 22 exhibitors. Belgians were judged by A. Haas, Paris, Ont.; Percherons by L. V. McNeely, Ste. Anne de la Pocatiere; Canadians and Clydes by E. Brunelle, Ste. Sophie.



P. NADEAU,
*the new Secretary-Manager of
the Quebec Dairy Commission*

THE COLLEGE PAGE

Items of news regarding the College, staff members, students and graduates.

THE STUDENT POPULATION

We forecast last month that registration would be satisfactory, and events have proved us correct. More students registered in the Agriculture and Household Science degree courses than last year; there are more students in the first year of the B.H.S. course than ever before. Applications for admission to the Diploma Course in Agriculture are still coming in, and a number more will probably be received, since the course does not open until November 4th.

The increase has not been maintained in the other courses, however. A drop has been recorded in the number of girls taking the one-year Homemaker Course; presumably many who in normal times would have enrolled are doing war work of one kind or another. In the School for Teachers fifty students fewer than last year are at classes. Last year's attendance, though higher than for some years, was by no means a record, and the decrease this year is somewhat surprising in view of the fact that a shortage of trained teachers exists in this province at the present time. War duties may have kept some away; some may have taken up other occupations which appear to offer more remuneration. Whatever the reason, it appears likely that there will be a lack of good teachers again next year.

It is still too early to determine how many students will register for graduate work, but it appears that registration of candidates for advanced degrees will again be large.

DEAN BRITAIN'S annual trip to the Maritime Provinces this summer included visits to the Departments of Agriculture at Fredericton and Halifax, and to the Agricultural College at Truro, to discuss agricultural policies with the officials. The Dean reports that the introductory issue of the "Journal" had been received with much interest in the East.

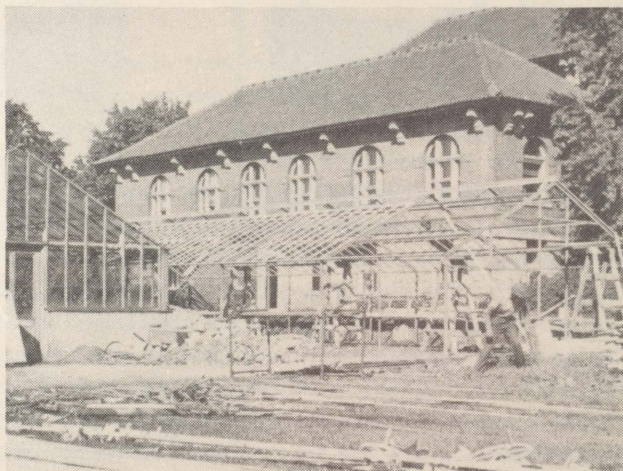
In the course of his visit he met a member of the N.S.A.C. graduates who are coming to Macdonald to complete their work, and also saw a number of graduates of Macdonald College, among whom were: T. G. Hetherington, R. P. Gorham, J. R. Gorham, J. F. McKenzie, J. L. Howatt, D. Dolan, T. C. Chaisson, L. Hawboldt, E. Boulden, G. Smith, K. Cox, G. Longley, A. Kelsall and W. B. McCulloch, all of whom are helping the progress of agriculture in the Maritimes.

H. L. Fletcher, 37, is a department manager with the Kellogg Company. We hear that he is also active in the militia, O.C. of something, but just what he is doing we have not yet been able to find out.

Service — 100%

The four sons of Mr. and Mrs. F. Griffen of Ste. Annes are all engaged in various types of war activity. Shirley Griffen, '38, is in New York working with the British Purchasing Commission. His brother Phil, who was a graduate student in chemistry last year, holds a commission with the Black Watch and is somewhere in England. An older brother, Herbert, who is an artillery officer, is also overseas and the fourth son, Robert, is in the Seaforth Highlanders in the West. Eileen, the only daughter, is doing special refugee work in Montreal.

It seems to us that the record of the Griffen family is a concrete example of that "unconquerable spirit of the British peoples" of which His Majesty spoke in a recent broadcast.

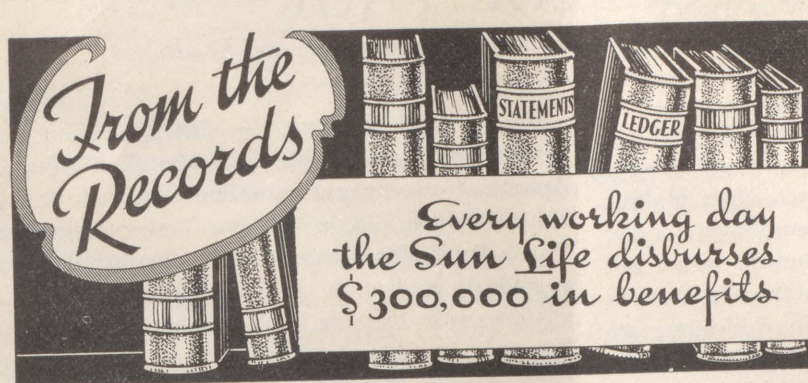


A new greenhouse is being built for the Horticulture Department. As our photo shows, one of the old houses has already been torn down, and work on the new house is well under way. The other two houses will be demolished as soon as the new one is finished.

The old houses have been in use ever since the college was built, but for the last few years repair bills have been mounting steadily. The work of the department will now be concentrated in one modern greenhouse where a certain loss of area will be offset by increased efficiency and ease of operation.

W. B. (Curly) Clements writes us from West Palm Beach, Florida. A graduate in Horticulture in 1934, he is now owner of a thriving business specializing in pest control and, as he says, "We do everything from spraying trees to treating homes for termites," which just goes to prove that a Macdonald College graduate can turn his hand to anything.

D. C. Dougall, '39, is in the Royal Air Force. He is stationed at Camp Borden and seems to be enjoying army life.



SUN LIFE of CANADA

HEAD OFFICE • MONTREAL

HOW CAN THE TEACHER HELP?

Continued from page 13

of Canadian citizens, east or west, English or French. If children acquire this spirit of friendliness and understanding they will not later develop an attitude of aloofness or distrust.

Now why is our great and rich land so sparsely populated? Surely it is not because there are no people in the world wanting to come in. Politicians and economists will give us many reasons why we have kept the world waiting on our doorsteps. The Germans say we show the worst example of "dog-in-the-mangerism" to be found anywhere in the world. However this may be, the real reasons have probably been that finding ourselves comfortable we have wished to hold on to that comfort, and have feared that by sharing with others we might have less for ourselves, and that more of our people would be without work. Whatever such precautions may be called, they look very much like selfishness, greed and a suspicion of others not quite as fortunate as we are.

Here surely is work for the teacher. Selfishness and snobbishness and exclusiveness appear often among children. *Such attitudes if unchecked may bring national disaster in the years to come.*

The next Canadian problem to be mentioned — a lack of interest in the corporate life of the nation — is one which can in many ways be traced back to our schools. Teachers have been so busy pushing, pulling, coaxing, even scolding the dull pupils that they have forgotten to make the most of the glorious opportunity offered by every bright child. These above-average pupils who should have been trained as the future leaders of the nation have too often been allowed to shift for themselves or go to seed for lack of proper stimulation.

Moreover, to what extent have our scholars developed a sense of civic responsibility, a sense of the duty owed by every individual to his group, a willingness to shoulder responsibility and to execute faithfully any public office to which he is called? In this direction a teacher's oppor-

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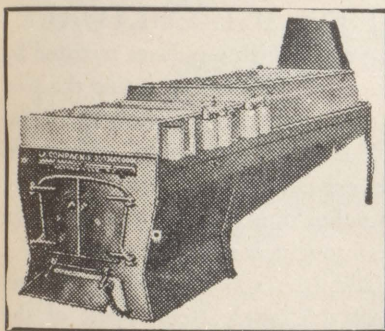
tunities are manifold, not only to teach her pupils what she can about their community and the government of their country, but to train them by assuming growing responsibilities as they advance through their school community, to be ready to shoulder cheerfully the greater burdens of adult life.

To meet the present threat to the safety and the freedom of Canada there is much that a teacher can do. First, she can try to induce the pupils — at any rate the older pupils — to believe that there is a danger. In the comparative peace and security of the Canadian countryside it is hard to realize that we are actually at war. It is not necessary

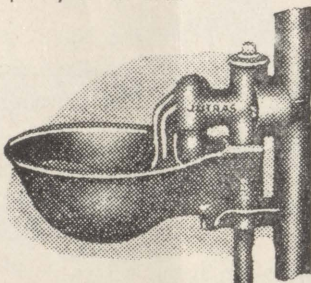
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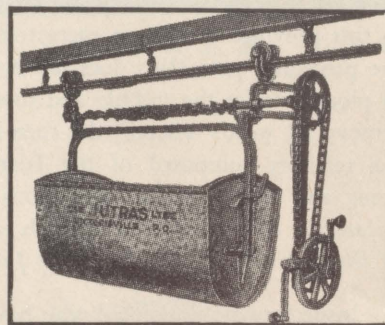
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to dwell on the horrors of war, nor to implant in the minds of our children hatred of our enemies, neither is it wise to instil in their minds a narrow, jingoistic patriotism; but it is necessary to give them a clearer idea of our present privileges. Freedom has meant so little to us who have known no other condition. Democracy has been little more than a name to most of us. We have heard from time to time of its weaknesses, but so little of its strength. Can we not with profit teach our pupils to prize their freedom and to realize that like everything worth having it has its price which must be paid? The vision of democracy can mean little to children, but if they can be trained in the simple, fundamental principles of practical Christianity they will be ready to develop and uphold democracy at its highest level.

Even beyond the walls of her school room a teacher can still serve her country. In almost every rural community the teacher is looked to for leadership. With a few other young people she may organize a group to study Canadian problems. Intercourse and discussion with others will help her to clarify her own ideas, while experience in discussing these problems with the pupils will be an aid to the group as a whole. Application to the Department of Education, the Women's Institute or the various Adult Education groups found throughout the province will bring lists of books useful in guiding the study and discussion. Interest in such a study will grow and its influence may be widespread.

The danger is that each individual teacher may think,

"Oh! that is all very well for so-and-so. I couldn't manage any of that." But to all these may I say, "No. The responsibility is yours, the opportunity is yours, this is how you may serve the country; there is no one else who can substitute for you. To the extent that you fail, Canada fails; to the extent that you go forward, Canada grows strong. Begin, now, to-day, and step by step go forward. Bravery is needed on the home front as well as in the field of battle, and cowardice and weakness can never be attributes of a good teacher."

HAVE YOU READ? * * *

How We Govern Ourselves, by G. V. Ferguson, a Contemporary Affairs pamphlet of the Canadian Institute of International Affairs, published by the Ryerson Press. This is number one in the series. 25 cents.

Human Dynamite. The Story of European Minorities. A Headline Book of the Foreign Policy Association by Henry C. Wolfe, with maps and charts by Emil Herlin. 25 cents.

The Peace that Failed. How Europe sowed the seeds of war. Another Headline Book. This is by Varian Fry who wrote the *War in China*. 25 cents. It is an analysis of the much discussed, much maligned Treaty of Versailles — a must for those whose thoughts turn to the next peace settlement.

Bricks Without Mortar—A Headline Book—25 cents. The story of international co-operation described in this book indicates steps that must be taken to bring nations together in peaceful co-operation.

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that of the individual. Bearing in mind the fact that the moths of this insect can fly considerable distances, it will be understood why co-operation is necessary. If a grower obtains 100 per cent control of his own property, only to be reinfested by insects from his neighbour's land, it is not only discouraging, but wasted effort and expense. We hear much of co-operation to-day. Let's try it in connection with corn borer control. NOW is the time to begin if we are to have clean corn next year.

Provincial Regulations

Certain provincial regulations regarding the suppression of the European corn borer are in force which it is necessary to observe. Briefly, they require all corn growers in this province to destroy every trace of the corn crop of the preceding year (this does not apply to corn in silos); to plough under the stubble and roots of the corn; and to remove all weeds wherein the corn borer might breed. In the territory composed of the Island of Montreal, Isles Jesus and Bizard, these regulations must be carried out *before the 20th of October* of each year; for the remainder of the province *before the 1st of June the following year*.

Inspectors are appointed who have authority to see that these regulations are carried out. It would seem that if unsatisfactory clean-up measures are being followed in a district, the inspector for that district might be asked to give advice as to how the work should be done and to see that the regulations are followed. There seems little doubt that the steady increase in numbers of the corn borer has been largely due to a lack of understanding of the seriousness of the situation. If this were realized by all instead of by a few there would be a more concerted effort put forth. Control regulations do not apply only to large plantings; it is frequently the small, neglected patch of sweet corn that acts as a source of supply, from which moths distribute themselves throughout the surrounding district. However, after this year's experience, it is to be hoped that all will co-operate in lessening the borer infestation before the 1st of June next. Otherwise we might as well stop trying to raise corn.

NOON HOUR AT SCHOOL

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Co-operation on the part of parents, teacher and child will go a long way toward making the school lunch a satisfactory one. Some arrangement can usually be made for serving one hot dish at school. Older pupils, with some direction, should gladly accept the responsibility of preparing hot soup or cocoa for the school family. Johnny is good at arithmetic — let him be the first accountant to check supplies of milk, cocoa, sugar or canned vegetables brought by pupils in turn. It may be easier to make a levy on each child for the "soup fund", and it is surprising to

know for how little the lunch from home may be rounded out to make a complete and more appetizing meal. Some interested group, or individual, might be asked to contribute supplies or small sums of money to keep the project going throughout the school year.

Is anything to be gained by the effort thus expended? The answer is definitely "yes". This may be a means of teaching food preparation, good habits and manners. It may also promote co-operation and good spirit among members of the same class and of one class and another. Greater than these results even will be the physical and mental development achieved through better feeding.

ACTIVITIES OF THE NOVA SCOTIA DEPARTMENT OF AGRICULTURE

One of the interesting and valuable policies initiated by the Nova Scotia Department of Agriculture during the past year has been the use of road equipment to break up a great deal of rough uncultivable land and put it into condition to raise crops. One cannot drive along the roads of Nova Scotia without remarking the improvement in appearance alone that this policy has brought about.

In the Annapolis Valley the scheme includes the removal of old and unprofitable apple trees, (part of the programme of getting rid of trees of odd varieties—long an acute problem in the marketing of apples) and the elimination of some 170 varieties. This policy serves the further purpose of making more land available for other crops, which is particularly important in "the Valley", where much of the best land is planted to apples.

The Department is doing everything possible to push co-operative marketing of farm products wherever conditions make this advisable. In some counties very rapid progress has been made in this field and the amount of certain products marketed co-operatively will be very much greater than last year. In connection with this, educational and promotion work in such matters as the control of disease—especially with such products as potatoes—go hand in hand with the marketing scheme. Tomato growers in a number of centres were organized on this basis for the first time.

The Department made history at the Nova Scotia Agricultural College this year by providing a summer course in agriculture for teachers, which all agreed was a great success. Much more than giving these rural teachers a better appreciation of the technical problems of agriculture, the course was planned to arouse greater interest in rural life and problems, and a better understanding of them which, it is hoped, those taking the course will be able to pass on to their pupils.

The Minister reports that much benefit followed the visit of Dr. Swales, of the Institute of Parasitology, MacDonald College. Dr. Swale's advice in connection with the control of parasites in sheep was followed and the result has been very satisfactory.